

CLAIMS

What is claimed is:

- 1 1. An apparatus, comprising:
2 a transaction facilitator;
3 a split-completion transaction arbiter coupled to the transaction facilitator;
4 and
5 a split-completion buffer coupled to the transaction facilitator.
- 1 2. The apparatus of claim 1, further comprising:
2 a split-completion commitment limit register;
3 a total outstanding split-completion register; and
4 a next split-completion size register.
- 1 3. The apparatus of claim 1, further comprising more than one bus coupled to said
2 transaction facilitator.
- 1 4. The apparatus of claim 1, wherein said transaction facilitator comprises an
2 initiator and a completer.
- 1 5. The apparatus of claim 1, wherein said split-completion arbiter comprises a
2 fairness determiner.
- 1 6. The apparatus of claim 5, wherein the fairness determiner comprises a round robin
2 determiner.
- 1 7. The apparatus of claim 5, wherein the fairness determiner comprises a fixed-
2 priority determiner.
- 1 8. The apparatus of claim 1, wherein said split-completion transaction arbiter
2 comprises a latency counter coupled to said transaction facilitator.
- 1 9. The apparatus of claim 1, wherein said split-completion buffer comprises:
2 a first-bus buffer coupled to a first split-completion transaction arbiter; and

- 1 10. A method, comprising:
2 receiving a transaction;
3 storing a split-completion for the transaction;
4 arbitrating the split-completion; and
5 initiating a split-completion transaction in response to said arbitrating the
6 split-completion.
- 1 11. The method of claim 10 further comprising responding to the transaction with a
2 split response.
- 1 12. The method of claim 10 wherein said receiving a transaction comprises receiving
2 part of an initiated sequence of transactions.
- 1 13. The method of claim 10 wherein said storing a split-completion for the transaction
2 comprises storing a sequence identification and a command identification.
- 1 14. The method of claim 13 wherein said storing a split-completion for the transaction
2 further comprises storing data corresponding to the command identification.
- 1 15. The method of claim 10 wherein said arbitrating the split-completion comprises
2 determining a ranking of a split-completion transaction for the split-completion.
- 1 16. The method of claim 10 wherein said arbitrating the split-completion comprises
2 limiting the duration of a split-completion transaction for the split-completion.
- 1 17. The method of claim 10 wherein said initiating a split-completion transaction
2 comprises transmitting a completion message.
- 1 18. The method of claim 10 wherein said initiating a split-completion transaction
2 comprises forwarding a split-completion.

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1 19. A system, comprising:

2 a requester;

3 an arbiter bridge coupled to said requester;

4 a microprocessor coupled to said arbiter bridge; and

5 a target device coupled to said arbiter bridge.

1 20. The system of claim 19, further comprising a bus arbiter coupled to said arbiter
2 bridge.

1 21. The system of claim 19, wherein said requester comprises a second
2 microprocessor coupled to said arbiter bridge.

1 22. The system of claim 19, wherein said requester comprises:

2 a sequence initiator coupled to said arbiter bridge; and

3 a sequence requester coupled to said arbiter bridge.

1 23. The system of claim 19, wherein said arbiter bridge comprises:

2 a transaction facilitator;

3 a split-completion transaction arbiter coupled to the transaction facilitator;

4 and

5 a split-completion buffer coupled to the transaction facilitator.

1 24. The system of claim 19, wherein said target device comprises a memory device
2 coupled to said arbiter bridge.

1 25. A machine-readable medium containing instructions, which when executed by a
2 machine, cause said machine to perform operations, comprising:
3 receiving a transaction;
4 storing a split-completion for the transaction;
5 arbitrating the split-completion; and
6 initiating a split-completion transaction in response to said arbitrating the
7 split-completion.

1 26. The machine-readable medium of claim 25 wherein said receiving a transaction
2 comprises receiving part of an initiated sequence of transactions.

1 27. The machine-readable medium of claim 25 wherein said storing a split-completion
2 for the transaction comprises storing a sequence identification and a command
3 identification.

1 28. The machine-readable medium of claim 25 wherein said arbitrating the split-
2 completion comprises determining a ranking of a split-completion transaction for
3 the split-completion.

1 29. The machine-readable medium of claim 25 wherein said initiating a split-
2 completion transaction comprises transmitting a completion message.